

11/11/2015

الجزء الثاني

م. م. م.

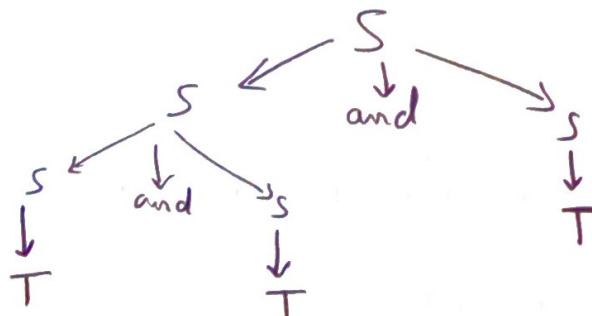
[5] سطر

Conti sheet 4

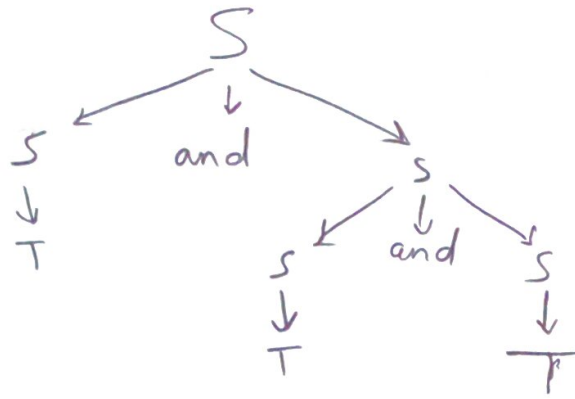
[8] $x a. a^x b^y$ $x=y$ $S \rightarrow a S b \mid \epsilon$ * $b. a^x b^y$ $x > y$ $S \rightarrow a E$ $E \rightarrow a E \mid \epsilon \mid a E b$ * $c. a^x b^y$ $x=2y$ $S \rightarrow a a S b \mid \epsilon$ * $d. a^x b^y a^z$ $z=x+y$ $S \rightarrow a S a \mid L$ $L \rightarrow b L a \mid \epsilon$ * $e. a^x b^y a^z$ $z=x-y$ $S \rightarrow a S b \mid L$ $x = z+y$ $L \rightarrow b L a \mid \epsilon$ [9] $S \rightarrow S \text{ and } S \mid \text{true}$

"true and true and true"

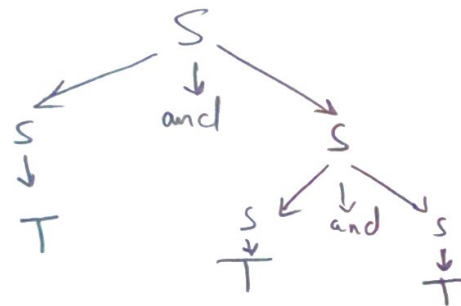
① $S \Rightarrow S \text{ and } S \Rightarrow S \text{ and } S \text{ and } S \Rightarrow \text{True and } S \text{ and } S$
 $\Rightarrow \text{True and True and } S \Rightarrow \text{True and True and True}$



② $S \Rightarrow S \text{ and } S \Rightarrow \text{true and } S \Rightarrow \text{true and } S \text{ and } S$
 $\Rightarrow \text{true and true and } S \Rightarrow \text{true and true and true}$

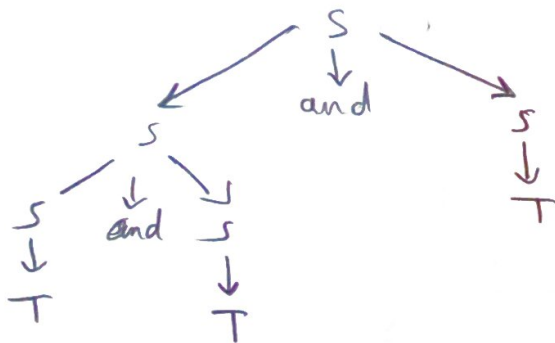


③ $S \Rightarrow S \text{ and } S \Rightarrow S \text{ and } S \text{ and } S \Rightarrow S \text{ and } S \text{ and True}$
 $\Rightarrow S \text{ and true and true} \Rightarrow \text{true and true and true}$



Same as ②

④ $S \Rightarrow S \text{ and } S \Rightarrow S \text{ and true} \Rightarrow S \text{ and } S \text{ and true}$
 $\Rightarrow S \text{ and true and true} \Rightarrow \text{true and true and true}$

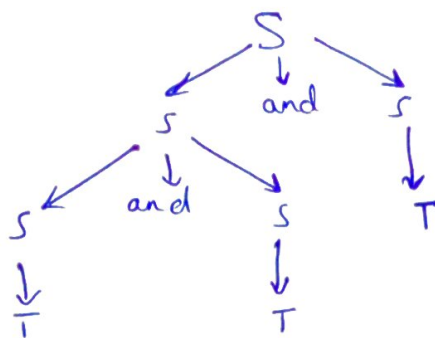


Same as ①

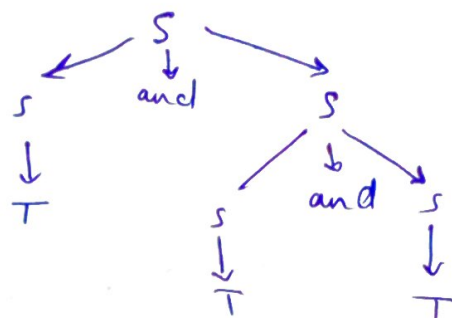
① and ② are left most derivations

③ and ④ are right most derivations

for ①, ④ tree is
left associative
(T and T) and T

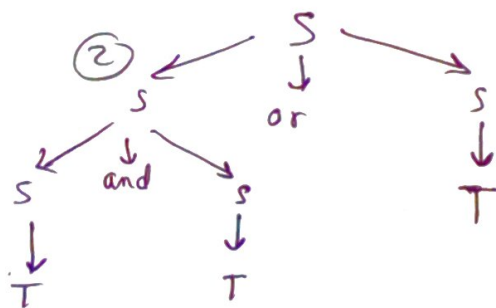
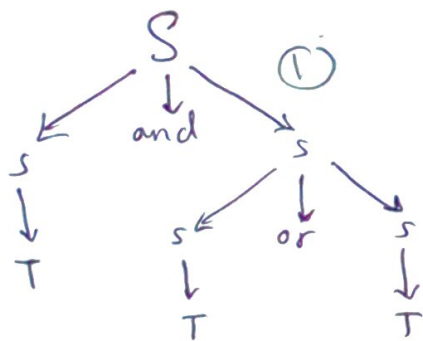


for ②, ③ tree is
right associative
T and (T and T)



⑩ $S \rightarrow S \text{ and } S \mid S \text{ or } S \mid \text{true}$
"true and true or true"

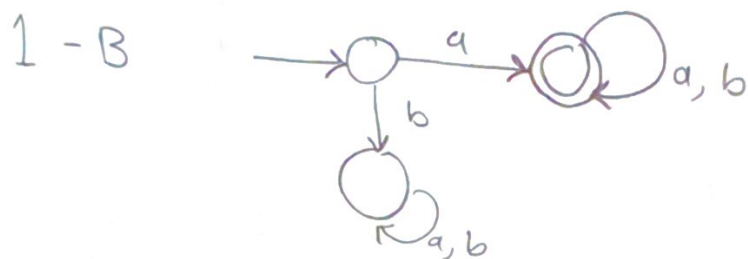
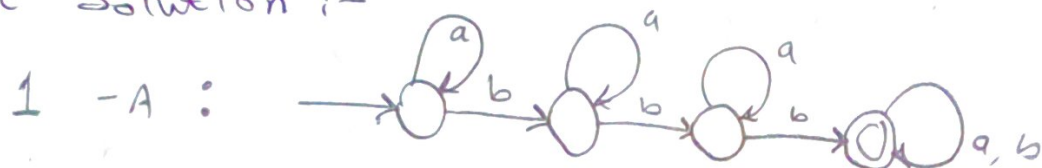
i)



ii) for ① (or) has higher precedence than (and)
for ② (and) < = = (or)

iii) $S \rightarrow S \text{ or } S \mid L$
 $L \rightarrow \text{true and } L \mid \text{true}$

Quiz Solution :-



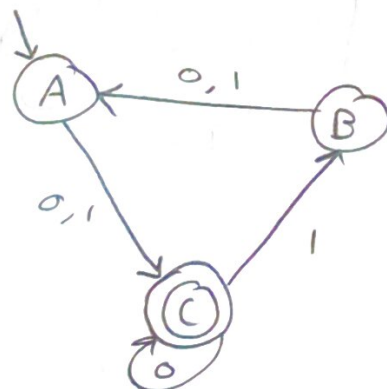
2 - A



$$(1+0)^* 1$$

$$0^* 1 (1+0^+1)^*$$

2 - B



$$(0+1)(0+1(0+1)(0+1))^*$$